Date: November 25, 2007
Subject: ETAAC November 15, 2007 Draft Report
To: Steve Church

Re: California Forestry Association Comments on 11/15/2007 draft ETAAC Report

Transportation Sector

CFA suggest that there needs to be consideration of how to move all of business off of the 8am-5pm Monday-Friday workweek. As banks are starting to do, and retailers have done for years, in the long run, all businesses need to move toward longer workdays and or 7-day schedules to stagger commuting times of employees and access by consumers.

As discussed in the Transportation Sector report, reducing commuting is important. But at a larger scale, spreading the traffic out over a longer period of time each day of the week would greatly relieve congestion and thereby minimize increased traffic capacity needs to the State's transportation infrastructure.

Energy Sector

California may have in place "aggressive renewable energy goals" (p.5-1) but the CEC and CPUC have not been successful to date in promoting resurgence of the biomass powerplant industry in California. California's biomass power industry continues in decline.

The science has demonstrated that for every 1 bone dry ton of wood waste consumed to generate electricity, there is at least a net reduction of 1 ton of greenhouse gases compared to a fossil fuel-fired powerplant (Morris, 2007). Further, several studies, including the Western Governors Association January 2006 Biomass Taskforce Report, have shown there's at least 11 cents/kilowatt of "**uncompensated"** social and environmental benefits of using wood waste for power generation.

There is annually at least 5 million bone dry tons of wood waste currently available in California that is not being utilized for power generation but rather is burned in piles in the forest or buried in landfills. Further, if the productive, not reserved forestlands of the National Forests of California were actively managed, there is the potential for another 5 million bone dry tons annually of wood waste available for power generation. 10 million bone dry tons would generate about 1,250 megawatts of electricity and would be a direct offset to fossil fuel-fired powerplants thereby creating a net 10 million tons reduction in CO2e/year for the In-State Emissions Inventory.

To move the 5 million tons of annual wood waste currently not utilized simply takes the courage of the regulators to compensate the biomass powerplants for the social and environmental benefits they provide. Currently transportation cost of feedstock

to the closest powerplant is an issue. As more and more economic feedstock is made available, more and more biomass powerplants would come back into operation in California thereby reducing the transportation costs. Incentives should also be directed such that the Air Resources Board considers the social and environmental benefits of biomass powerplants in site permitting. Strategically located biomass powerplants to minimize feedstock transportation costs and powerline infrastructure is of utmost importance to maximize biomass energy production at a reasonable price.

California needs to determine how best to recognize that using wood waste to generate electricity creates a "renewable energy credit" (REC). Wood waste provides a direct, easily measured offset of fossil fuel-fired power. The REC should be owned by the powerplant thereby providing additional incentives to the biomass powerplant industry to grow and flourish in California.

Creating a level playing field for renewables is a must. If biomass for power generation enjoyed the subsidies that solar power receives, the biomass industry would be growing rather than declining. Oregon recognizes the benefit of wood waste for electricity generation by putting in place a 50% investment tax credit and a $20/ton feedstock transportation subsidy along with no sales tax in that State.

California's Governor must get directly involved with the Federal Government (both Congress and the Executive Branch) to promote management policy changes on the National Forests in California in order to tap the potential emissions reduction of forest management. California's National Forests are rapidly on a trajectory of burning up the forestland acreage in wildfires at the rate of 1 percent/year. That means the forests burn up once every 100 years. A comprehensive life cycle carbon on California's National Forests might show that they are net emitters rather than net sinks due to lack of management and mortality caused by insects, disease, and wildfire.

Forestry Sector

Key Overriding Themes – This section could be updated based on the Air Resources Board (ARB) meeting of October 25, 2007 adopting the CCAR forestry protocols AND directing the ARB staff to address the need for additional protocols to respond to managed forests and public lands. The CCAR has begun a process and established workgroups to consider revision of and additions to the existing CCAR forestry protocols.

Chapter 7 could point out that CCAR's existing forest protocols are barriers to participation for nearly all California forestland owners, including public lands. The CCAR has only two forest registrants. Those two registrants represent less than 1/10 of 1 percent of California's forestlands. Additional protocols are needed to provide incentive-based, inexpensive forest protocols without the barriers and technical issues associated with the current CCAR forest protocols so that the other 99.9 percent of California's forest landowners can participate.

CFA believes there is an additional RD&D need (p. 7-4). We believe comprehensive carbon life cycle modeling for redwood, Douglas fir, ponderosa pine, and mixed conifer tree species within California is needed and would greatly facilitate accurate forest carbon accounting. These comprehensive models would include in-depth analysis of the effects of insect, disease, and wildfire on the carbon life cycle and should include sensitivity analysis based on PIER research predictions for climate change in California. A Research proposal for this work has been submitted to ARB.

CFA suggests there are at least two additional "Key Overriding Themes" (p. 7-4) that should be considered:

1) The potential opportunity of regulatory streamlining and federal land management policy changes that could greatly facilitate active forest management on both private and public (National Forests) productive forestlands, not reserved in California.

   California's National Forests alone have 7.5 million acres of productive forestland that is at risk to catastrophic wildfire. The current federal policy is to strategically place fuelbreaks on the landscape on about 20 percent of the forestland over the next 15-20 years. The Forest Service, California Region currently averages about 100,000 acres/year of fuels reduction initial treatments. The Forest Service themselves admit they will have to reenter the same acre about once every 20 years. The ETAAC draft Report (p. 7-7) correctly notes that fuels reduction projects are expensive. However, with strategic project design, revenue generated from needed thinning of commercial-size trees, to achieve fuels reduction objectives, has been demonstrated to be sufficient to pay for the smaller non-merchantable ladder fuels and underbrush. The Forest Service Blacks Mountain Experimental Forest north of Susanville and the U.C. Berkeley Blodgett Experimental Forest east of Georgetown have both independently shown that the revenue generated from thinning can cover all the biomass removal costs and can cover the cost of placing crushed rock on all the roads needed to transport biomass from the project area. With 9.8 million acres of productive, not reserved forestland under federal ownership on the National Forests in California, the treatment rate could be and should be at a sustainable 500,000 acres per year. This one federal policy change could:

   - Generate a substantial increase of potentially 18 million tons of CO2e/year in net sequestration on the National Forests directly benefiting AB 32 emission reduction goals;
   - Generate a substantial increase in carbon stored in "California Grown" long-lived wood products, which are a direct "substitution" for non-renewable steel, concrete, aluminum, and vinyl building materials, thus, also directly benefiting AB 32 emission reduction goals;

- Generate an additional 5 million bone dry tons of wood waste for electricity generation (about 625 megawatts of "new" baseload electricity that directly offsets fossil fuel-fired powerplants) thereby creating a 5 million ton/year CO2e net reduction for AB 32 emission reduction goals; and
- According to Forest Service researchers, reduce the acreage burned in wildfires by 50-60 percent and achieve the associated wildfire emissions reductions that would be directly applicable to AB 32 emissions reduction goals. The alternative, according to California PIER research, is to expect up to a 55 percent increase by the end of this century in annual forestland burned in wildfire in California.

2) Recognize and pursue regulatory changes through CEC and CPUC to revitalize the Biomass powerplant industry in California. In the early 1990's, there were 62 powerplants in operation generating over 900 megawatts of baseload electricity. Today, there are 27 powerplants operating generating a little over 500 megawatts of electricity. The Western Governors Association January 2006 Biomass Taskforce Report (p.9) clearly demonstrates that there is at least 11 cents/kilowatt-hour of "**uncompensated"** social and environmental benefits of using wood waste to generate electricity.

   As discussed on pages 1 and 2 above, there is up to 1,250 megawatts of renewable power potential and 10 million tons of CO2e emission reduction that could be applied to AB 32 emission reduction goals at stake. There is appropriate concern that feedstock transportation costs are high. However, if there was 40 additional new 30-megawatt powerplants strategically located in the State, transportation costs would be reduced and much of the current uneconomic feedstock would be economically reachable. By paying for much of the "**uncompensated"** social and environmental benefits of using wood waste for electricity generation, potentially all of the currently unutilized feedstock would be available.

CFA commends ETAAC (p. 7-10) for recommending endorsement of "California Grown" products and actions that contribute to emissions reductions. Over 70 percent of California's wood consumption is imported. That statistic could be reduced dramatically if state regulatory changes and federal land management policy changes were in effect.

ETAAC (p. 7-2) also accurately concludes that forest management issues can lead and often do lead to litigation, which can result in "gridlock" that likely only federal legislation can overcome.

Leakage

Chapter 4 (p. 4-1) correctly points out that preventing leakage is a major challenge for California policymakers. CFA believes this needs further attention in the ETAAC

Report. The complication is that AB 32 is only addressing emissions reductions on an "In-State" basis, except for imported electricity. This inherently will cause a problem because leakage is not directly addressed in an "In-State" Emission Inventory.

The perfect example of where leakage becomes a major issue is ARB's adoption of the Off-Road Diesel Engine Emission Regulation July 2007. This regulation upon adoption immediately made used Off-Road Diesel Equipment worthless in California. Nobody in California will buy any of the used equipment because it's now a liability on a business's fleet emissions reduction requirements. As a result, businesses will have to take used equipment to out-of-state auction yards for disposal. Many billions of dollars will be spent to replace used Off-Road equipment; ARB says 3 billion; industry says perhaps 13 billion. In any case, it is a very large number that will be eventually passed on directly to California consumers and taxpayers. The outcome will be cleaner air for California by exporting the used equipment emissions to another State or foreign country. This will be just the first of many examples of ARB regulatory actions to reduce "In-State" emissions without directly addressing leakage.

Appendix III: Inventory of Existing State Funding Sources to Reduce GHG Emissions

If California is interested in the most cost efficient achievement of its renewable portfolio standard, CFA does not understand the three following grant programs:

1) California Solar Initiative (p.9-13) - $2.16 billion over 10 years with grant amounts ranging from $0.03-0.50/kilowatt-hour;
2) California Solar Initiative R&D (p. 9-14) - $50 million over 10 years to subsidize solar distributed generation projects to reduce the current retail solar price from $0.30/kilowatt-hour to comparable current retail prices for electricity; and
3) New Solar Homes Partnership (p. 9-20) - $400 million over 10 years to subsidize solar in new home construction for single family, low-income, and multi-family housing with the proposed subsidy being $0.25-$2.60/watt.

Paying 2 cents of the **"uncompensated"** social and environmental benefits associated with using wood waste for power generation to biomass powerplants could greatly facilitate transporting currently uneconomic wood waste to a powerplant for electricity generation. CFA commends ETAAC for noting the current market price referent and RPS pricing process is still too complicated and that the "on-again, off-again" status of the production tax credit and investment tax credit is "counterproductive" (p.9-49 and 9-50).

Biomass powerplants provide baseload power generation. The recognized possibility of running 84% of U.S. automobiles, by using excess generating capacity (off-peak) for recharging plug-in hybrid and dedicated electric vehicles, is a potential major benefit to emissions reductions (p.9-52).

CFA appreciates the opportunity to provide comment to ETAAC's draft report.

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